

Remarks

Claims 3-20 are now pending in this application. Applicants have amended claims 3, 4, 6, 11 and 13 and added claims 19 and 20 to clarify the present invention. Applicants respectfully request favorable reconsideration of this application.

The Examiner objected to claims 4 and 11. Applicants have amended claims 4 and 11 to address this objection. Accordingly, Applicants respectfully requests withdrawal of the objection to claims 4 and 11.

The Examiner rejected claim 13 under 35 U.S.C. § 112, second paragraph. Applicants have amended claim 13 to address this objection. Applicants submit that claim 13 complies with 35 U.S.C. § 112, second paragraph and respectfully request withdrawal of this rejection.

The claimed invention, which includes a sensor that includes two different regions that measure different information about an object with different resolutions can result in increased resolution across the sensor, faster sampling of 2D data and at a higher resolution in both the X and Y directions. On the other hand, attempts to increase resolution utilizing known devices employed oversampling and only resulted in an increase in resolution in a Y direction. Resolution across the sensor (in the X direction) is typically limited by pixel density and along the sensor (in the Y direction) by scanning speed. The claimed invention can increase resolution utilizing a higher density of pixels. The sensor can sense different properties at different resolutions from the same area on an object. This was not known in the prior art.

The Examiner rejected claims 3-5, 7-11, and 13-18 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 7,034,272 to Leonard et al. in view of U.S. patent 5,355,309 to Eberhard et al. The Examiner rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Leonard et al. in view of Eberhard et al. and further in view of U.S. patent 6,320,618 to Aoyama. The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Leonard et al. in view of Eberhard et al. and further in view of U.S. patent 7,027,193 to Spears.

The combination of Leonard et al. and Eberhard et al. does not suggest the invention recited in claims 3-5, 7-11 and 13-18 since, among other things, the combination does not suggest a sensor that includes two different regions that measure different information about an object with different resolutions. The Examiner is incorrect that col. 12, lines 23-47 of Leonard et al. suggests different regions of a sensor having different resolutions to measure different properties of an object at different resolutions. This passage does not even include the term "resolution" anywhere.

The Examiner asserts that Fig. 10 suggests regions having different pixel densities. However, Fig. 10 only shows four regions all having the same pixel density. The region 42 is a region of two areas. The edges of the area are denoted by the lines with arrows at their tips at the left of the figure. Fig. 10 illustrates the sensor on its side with the columns as rows. That is why the text at col. 6, lines 31-49, refers to columns including pixels. The description of the rows may be found at col. 4, lines 50-60, and is shown in Figs. 4 and 5. Clearly, region 42 is not referring to the regions between the columns (or rows). Therefore, Leonard does not suggest

regions having different pixel densities.

Eberhard et al. also does not suggest a sensor that includes two different regions that measure different information about an object with different resolutions. Rather, Eberhard et al. suggests a sensor that includes regions that capture the same type of information with different resolutions.

In view of the above, the combination of Leonard et al. and Eberhard et al. does not suggest the invention recited in claims 3-5, 7-11 and 13-18. Accordingly, the invention recited in claims 3-5, 7-11 and 13-18 is not obvious in view of the combination of Leonard et al. and Eberhard et al. Consequently, Applicants respectfully request withdrawal of this rejection.

The combination of Leonard et al., Eberhard et al. and Aoyama does not suggest the invention recited in claim 12 since, among other things, the combination does not suggest a sensor that includes two different regions that measure different information about an object with different resolutions. The Examiner cites Aoyama as suggesting reading different areas into separate registers. Even if Aoyama were to suggest such registers, such registers do not suggest the sensor recited in claim 9, from which claim 12 ultimately depends.

Accordingly, the combination of Leonard et al., Eberhard et al. and Aoyama does not suggest the invention recited in claim 9. Accordingly, the invention recited in claim 9 is not obvious in view of the combination of Leonard et al., Eberhard et al. and Aoyama. As a result, Applicants respectfully request withdrawal of this rejection.

The combination of Leonard et al., Eberhard et al. and Spears does not suggest the invention recited in claim 6 since, among other things, the combination does not suggest a sensor that includes two different regions that measure different information about an object with different resolutions. The Examiner cites Spears as suggesting filters to minimize cross-talk. Filters to minimize cross-talk do not suggest the sensor recited in claim 16, from which claim 6 depends.

In view of the above, the combination of Leonard et al., Eberhard et al. and Spears does not suggest the invention recited in claim 6. Accordingly, the invention recited in claim 6 is not obvious in view of the combination of Leonard et al., Eberhard et al. and Spears. Therefore, Applicants respectfully request withdrawal of this rejection.

In view of the above, the references relied upon in the office action, whether considered alone or in combination, do not suggest patentable features of the claimed invention. Therefore, the references relied upon in the office action, whether considered alone or in combination, do not make the claimed invention obvious. Accordingly, Applicants respectfully request withdrawal of the rejections based upon the cited references.

In conclusion, Applicants respectfully request favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would advance the prosecution of this application, Applicants respectfully

urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

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